The JOURNAL *of* GEOGRAPHY

Copyright, 1946, by the National Council of Geography Teachers

VOLUME XLV OCTOBER, 1946 NUMBER 7

THE BULK FREIGHT TRADE OF THE GREAT LAKES

VILLA B. SMITH
John Hay High School, Cleveland, Ohio

This unit was prepared for classes in Senior High School geography. It is based upon materials derived from the "Marine News" column published daily in the *Cleveland Plain Dealer,* and upon information gained from sound and silent motion picture films, lantern slides, mounted pictures, maps, charts and tables.

The daily newspaper records of arrivals and clearances at lake ports, the records of commodities loaded and unloaded, and of passages up and down the Great Lake waterway furnish materials for study and interpretation.

The motion pictures offer first hand contact with ships, cargoes and port activities. They furnish experiences which put life and meaning into the more prosaic records. They provide field experiences within the confines of the classroom and are a substitute for reality.

The lantern slides and mounted pictures offer opportunity for closer study of ships and cargoes. They are as effective in their way as are the films. Their use permits greater student activity and a more thoro investigation of details.

This unit is based upon data for the year 1941. Later data have not been published, since all information concerning ships and commodity movements was withheld following the outbreak of World War II. When publication is again resumed new materials will be available and should be used.

The preliminary organization of a unit such as this requires time, as the daily "Marine News" reports must be collected for at least a month, to provide a class of thirty with working material. Each report must be mounted separately so as to be available for individual use. Reports for a season should be assembled for general reference.

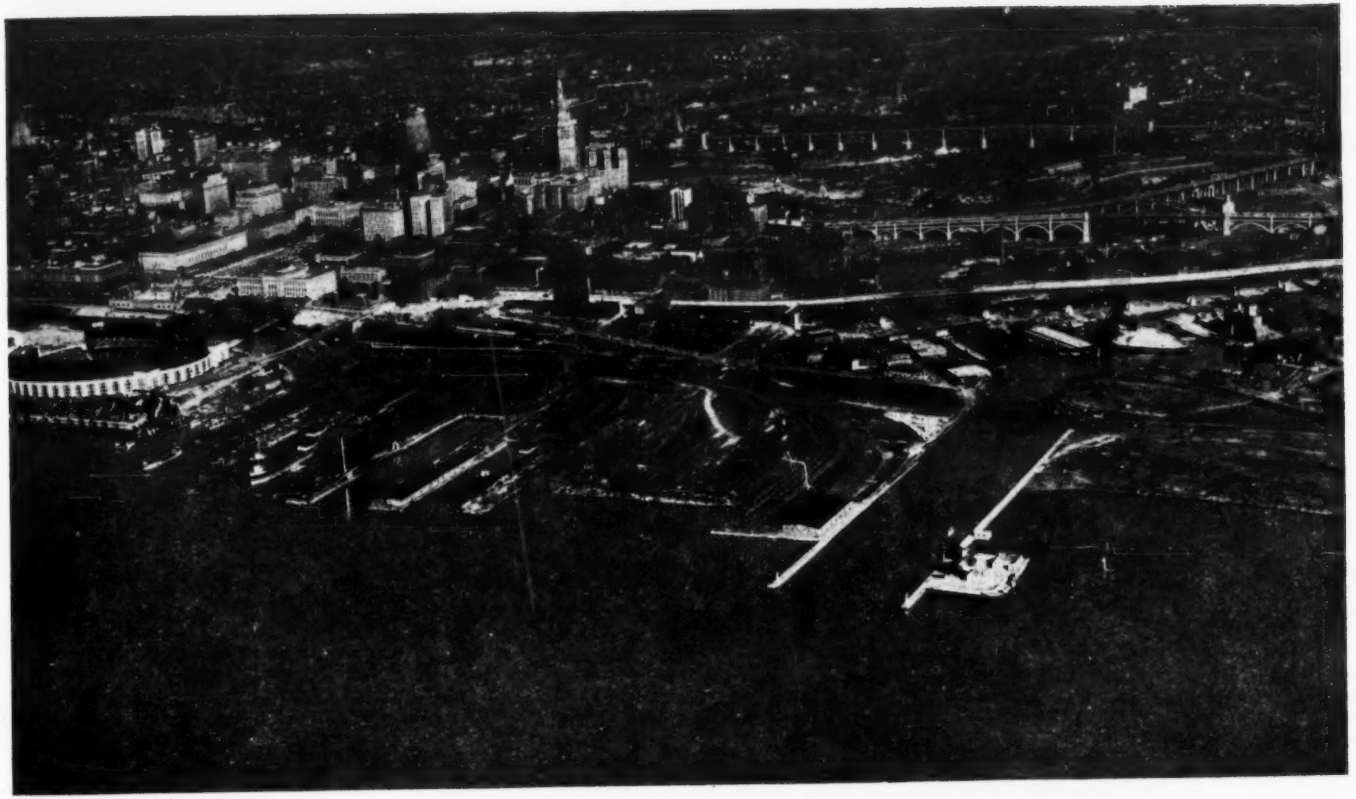

Fig. 1. Part of the outer harbor of Cleveland and the entrance to the inner harbor.
(Courtesy of Butler Photo.)

The Bulk Freight Trade of the Great Lakes

I. What is the Great Lakes waterway and what are some of its important ports?

A. On an outline map indicate by name the following:

1. Lake Superior
2. Lake Michigan
3. Lake Huron
4. Georgian Bay
5. Lake Erie
6. Lake Ontario
7. St. Mary's River
8. Sault Ste. Marie
9. Strait of Mackinac
10. St. Clair River
11. Lake St. Clair
12. Detroit River
13. Welland Canal
14. St. Lawrence River
15. The Illinois Waterway
16. New York State Barge Canal

B. From a copy of "Marine News" secure the names of

1. 9 ports on Lake Erie
2. 6 ports on Lake Michigan
3. 5 ports on Lake Superior
4. 4 ports listed in the record of "Steamer Passages"

C. Locate these ports. Place a dot for each in its proper place on the outline map. Write the name of the port beside the dot.

II. What commodities are shipped over the Great Lakes waterway?

A. From a copy of "Marine News" for a single day secure data concerning the number of ships that enter and leave each port; data concerning cargoes these ships carry. This information is listed under headings: "Arrived" and "Cleared." At some ports a great many different kinds of cargoes are handled, at others, very few. List each kind. Count carefully the number of ships carrying each commodity. Record these numbers. Ships without cargo are listed as light. Keep a record of number light.

B. Have your data ready for tabulation on the blackboard. Your data added to those of others in the class will make a month's record of shipping on the Great Lakes.

C. From the tabulated data secure answers for the following questions:

1. What commodities are the important ones in lake shipping?
2. Are these commodities raw materials or manufactured goods?
3. Are these commodities heavy or light?
4. Are they bulky or do they require little space?
5. How do you account for the large number of ships that arrive light at the ports of Ashtabula, Sandusky and Toledo?
6. How do you account for the large number of ships that arrive light at Duluth?
7. How do you account for the large number of ships that leave Gary, South Chicago and Indiana Harbor light? Where do they go?
8. Make a general statement concerning commodity movements at Lake Superior ports.
9. A general statement for Lake Erie ports.
10. A general statement for Lake Michigan ports.

D. From the tabulated data ports may be classified. Indicate those that are:

1. Iron ore shipping ports
   Iron ore receiving ports

2. Wheat shipping ports
   Wheat receiving ports
3. Coal shipping ports
   Coal receiving ports
4. Petroleum shipping ports
   Petroleum receiving ports
5. Sulphur shipping ports
   Sulphur receiving ports
6. Merchandise shipping ports
   Merchandise receiving ports
7. Newsprint shipping ports
   Newsprint receiving ports
8. Pulpwood shipping ports
   Pulpwood receiving ports
9. Auto shipping ports
   Auto receiving ports

N.B. If new ports appear in this list indicate them on your outline map.

III. Why are heavy raw materials the chief products carried on the Great Lakes and why are certain of these products handled by some ports and not others?

A. Why ports specialize in different commodities.

(Consult maps in textbooks showing distribution of wheat and corn; iron ore, coal, petroleum, forests; railroads, pipelines; population.)

1. How are areas of production situated in relation to the Great Lakes?
2. Are products such as iron ore and coal localized so they are tributary to some lakes and not others?
3. How do the maps help explain the heavy movement of:
   a. Coal from Lake Erie ports?
   b. Coal to Lake Superior ports?
   c. Iron ore down the lakes?
   d. Newsprint and pulpwood from Lake Superior ports?
   e. Petroleum from Lake Michigan and Lake Erie ports?
4. How does location of corn and wheat producing areas help explain grain movements from Lake Superior and Lake Michigan ports?
5. How are rail and pipe lines related to producing areas and to ports on the Great Lakes?
6. What does the population map suggest as some of the reasons why commodity movements are heavier from west to east than from east to west?

B. Why a water route is better for heavy raw materials.

(Consult "Annual Report Lake Carriers' Association 1941" and Table X, p. 46, "Analyses Lake Superior Iron Ores, Season 1943," by Lake Superior Iron Ore Association, Cleveland.)

1. How much does it cost per ton to ship iron ore from
   a. Head of Lake Superior to Lake Erie ports?
   b. Marquette to Lake Erie ports?
   c. Escanaba to Lake Erie ports?
   d. Escanaba to the Chicago District?
2. How much does it cost per ton to ship iron ore by rail from
   a. Mines to Lake Superior shipping points?

b. Lake Erie ports to Canton and Massilon, Ohio?
c. Lake Erie ports to Pittsburgh?

3. How much does it cost per ton to ship coal from
   a. Lake Erie ports to head of Lake Superior?
   b. Lake Erie to Milwaukee and the Chicago District?
   c. Lake Erie to Georgian Bay?
4. How much does it cost per bushel to ship wheat from
   a. Ft. William to Buffalo?
   b. Ft. William to Georgian Bay?
   c. Ft. William to Montreal?

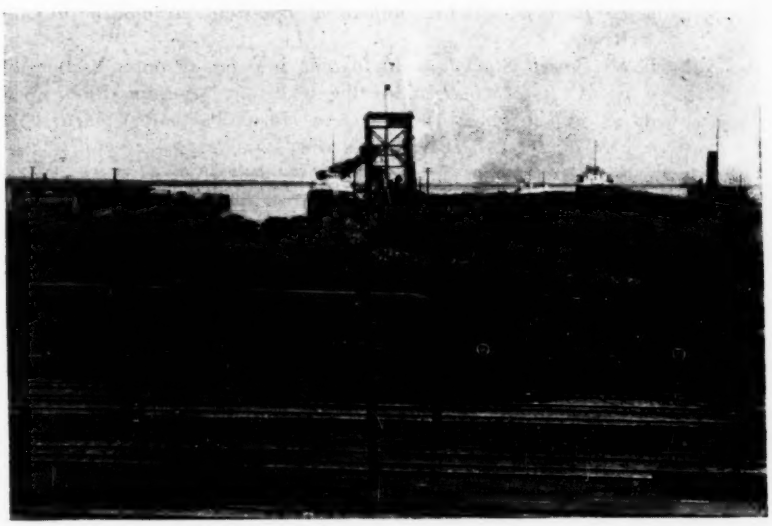

Fig. 2. Coal docks on the lake front

5. How much would it cost to ship a bushel of wheat by rail?
6. What is the average distance lake cargoes are carried? (Consult "Marine News," October 20-21, 1941)
7. What is the average freight charge per ton mile on the lakes? (Consult "Marine News," October 20-21, 1941)
8. What are the advantages of the Great Lakes as a highway in terms of transportation costs?

IV. What types of ships carry the heavy raw materials over the Great Lakes waterway?

A. 16 mm. films, lantern slides and mounted pictures furnish information concerning ships and shipping on the Great Lakes. The following are to be used:

1. Sound films
   a. "Great Lakes." National Film Board of Canada. 2 reels, technicolor.
   b. "Lake Carrier." Office of War Information. Bureau of Motion Pictures, Washington.

2. Wheat shipping ports
   Wheat receiving ports
3. Coal shipping ports
   Coal receiving ports
4. Petroleum shipping ports
   Petroleum receiving ports
5. Sulphur shipping ports
   Sulphur receiving ports
6. Merchandise shipping ports
   Merchandise receiving ports
7. Newsprint shipping ports
   Newsprint receiving ports
8. Pulpwood shipping ports
   Pulpwood receiving ports
9. Auto shipping ports
   Auto receiving ports

N.B. If new ports appear in this list indicate them on your outline map.

III. Why are heavy raw materials the chief products carried on the Great Lakes and why are certain of these products handled by some ports and not others?

A. Why ports specialize in different commodities.

(Consult maps in textbooks showing distribution of wheat and corn; iron ore, coal, petroleum, forests; railroads, pipelines; population.)

1. How are areas of production situated in relation to the Great Lakes?
2. Are products such as iron ore and coal localized so they are tributary to some lakes and not others?
3. How do the maps help explain the heavy movement of:
   a. Coal from Lake Erie ports?
   b. Coal to Lake Superior ports?
   c. Iron ore down the lakes?
   d. Newsprint and pulpwood from Lake Superior ports?
   e. Petroleum from Lake Michigan and Lake Erie ports?
4. How does location of corn and wheat producing areas help explain grain movements from Lake Superior and Lake Michigan ports?
5. How are rail and pipe lines related to producing areas and to ports on the Great Lakes?
6. What does the population map suggest as some of the reasons why commodity movements are heavier from west to east than from east to west?

B. Why a water route is better for heavy raw materials.

(Consult "Annual Report Lake Carriers' Association 1941" and Table X, p. 46, "Analyses Lake Superior Iron Ores, Season 1943," by Lake Superior Iron Ore Association, Cleveland.)

1. How much does it cost per ton to ship iron ore from
   a. Head of Lake Superior to Lake Erie ports?
   b. Marquette to Lake Erie ports?
   c. Escanaba to Lake Erie ports?
   d. Escanaba to the Chicago District?
2. How much does it cost per ton to ship iron ore by rail from
   a. Mines to Lake Superior shipping points?

b. Lake Erie ports to Canton and Massilon, Ohio?
c. Lake Erie ports to Pittsburgh?

3. How much does it cost per ton to ship coal from
   a. Lake Erie ports to head of Lake Superior?
   b. Lake Erie to Milwaukee and the Chicago District?
   c. Lake Erie to Georgian Bay?
4. How much does it cost per bushel to ship wheat from
   a. Ft. William to Buffalo?
   b. Ft. William to Georgian Bay?
   c. Ft. William to Montreal?

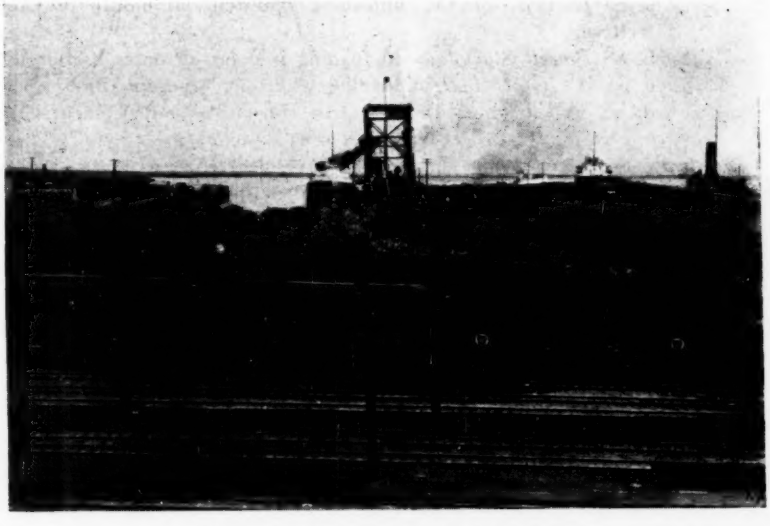

Fig. 2. Coal docks on the lake front

5. How much would it cost to ship a bushel of wheat by rail?
6. What is the average distance lake cargoes are carried? (Consult "Marine News," October 20-21, 1941)
7. What is the average freight charge per ton mile on the lakes? (Consult "Marine News," October 20-21, 1941)
8. What are the advantages of the Great Lakes as a highway in terms of transportation costs?

IV. What types of ships carry the heavy raw materials over the Great Lakes waterway?

A. 16 mm. films, lantern slides and mounted pictures furnish information concerning ships and shipping on the Great Lakes. The following are to be used:

1. Sound films
   a. "Great Lakes." National Film Board of Canada. 2 reels, technicolor.
   b. "Lake Carrier." Office of War Information. Bureau of Motion Pictures, Washington.

c. "Port of Cleveland." Ernest M. Reynolds. Gold Seal Super-Scenic.

2. Silent films
   a. "Boats on the Great Lakes." Educational Film Service. Battle Creek, Michigan.
   b. "Transportation on the Great Lakes." Eastman Classroom Films.
3. Lantern Slides (Cleveland Dept. of Visual Aids)
   a. "Cleveland Harbor"
   b. "Great Lakes Shipping"
   c. "Development of Great Lakes Transportation"
4. Mounted pictures—Cleveland Harbor Activities (Enlargements 12 x 14)
   a. *SS Carl D. Bradley* unloading limestone at mouth of Cuyahoga River
   b. *SS Powell Stackhouse* unloading iron ore in outer harbor
   c. *SS A. B. Macbeth* unloading wheat at Montana Flour Mill
   d. *SS S. T. Crapo* with cement at Huron Portland Cement Co.
   e. *SS Fayette Brown* with iron ore
   f. *SS Grand Island* on way up Cuyahoga River with iron ore
   g. *SS Kelley Island* unloading sand at dock on the Cuyahoga
   h. *SS Sir William Fairbairn* unloading flax seed at Sherwin Williams Paint Company
   i. *SS Regent* and *SS Paratex* with gasoline at Gulf Refining Co.
   j. Coal docks on lake front, Cleveland

   N.B. Information concerning the size of these ships and their cargoes may be secured from mimeographed sheets based upon this set of pictures. Consult this material.

B. From the pictorial materials secure answers to the following:
   1. What are the outstanding features of lake freighters?
   2. Why are they well named the "long ships"?
   3. How do they lend themselves to speedy loading and unloading?
   4. What are the advantages in having lake freighters flat bottomed?
   5. What are the advantages in having a long, unobstructed deck?
   6. What special loading and unloading equipment speeds the handling of such cargoes as iron ore, coal, wheat and oil?
   7. What is the capacity of some of the freighters?
   8. What kinds of ships carry petroleum products on the Great Lakes?
   9. What kinds carry sand, limestone and cement?
   10. What are car ferries? Where are they used? Why?
   11. List at least 10 raw materials featured in the films and pictures.
   12. List at least 5 types of ships.

V. How large is the fleet of lake carriers? What is its tonnage and what are some of its records? (Consult "Annual Report Lake Carriers' Association 1941")

A. The Lake Fleet
   1. Gross tonnage of the fleet
   2. The registry of vessels
      a. Number of vessels of United States registry
      b. Number of vessels of Canadian registry
   3. Number of bulk freighters in iron trade
   4. Number of bulk freighters in mixed trade

5. Number of package freighters
6. Number of oil tankers
7. Number of car ferries

N.B. What is gross tonnage? What is registry?

B. Records.

1. Loading and unloading records in amount and in time
   a. Iron ore
   b. Coal
2. Cargo records and dates
   a. *SS Harry Coulby*
   b. *SS Lemoyne*
   c. Any others

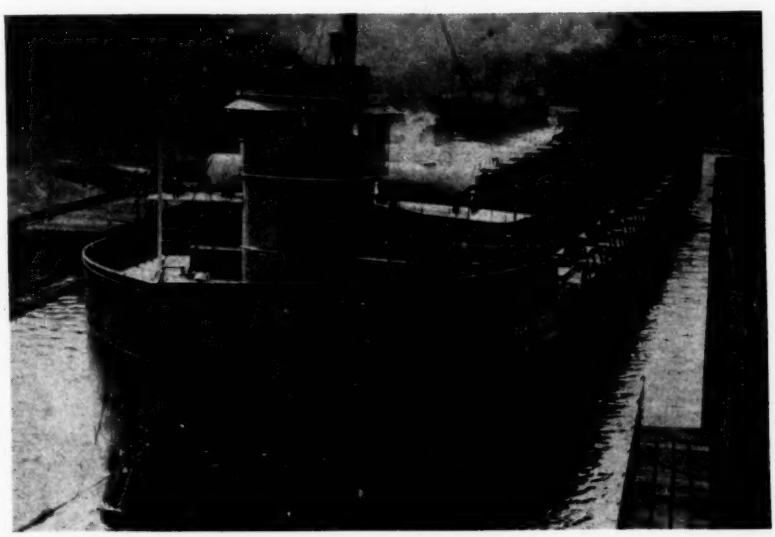

Fig. 3. The *Grand Island,* an ore freighter

VI. How are ships routed on the Great Lakes and how long does it take them to complete a round trip?

A. The following data were secured from the "Marine News" for August, 1941

The *SS Gleneagles* (Canadian Registry)
Cleared Duluth with *ore* on August 2d
Passed Sault Ste. Marie (down) on August 3d at 10:00 P.M.
Passed Detroit (down) on August 5th at 5:30 A.M.
Arrived Conneaut on August 5th
Cleared Conneaut *light* on August 5th
Arrived Ashtabula August 6th
Cleared Ashtabula with *coal* for Hamilton on August 6th
Passed Port Colborne (down) on August 6th at 9:55 P.M.
Passed Port Colborne (up) on August 9th at 5:10 P.M.
Arrived Toledo *light* on August 10th
Cleared Toledo with *coal* on August 10th

Passed Detroit (up) on August 10th at 5:00 P.M.
Passed Sault Ste. Marie (up) on August 12th at 3 A.M.
Arrived Ashland
Cleared Ashland with *ore* for Hamilton on August 14th
Passed Sault Ste. Marie (down) on August 15th at 9:30 P.M.
Passed Detroit (down) on August 17th at 5:30 A.M.
Passed Port Colborne (down) on August 18th at 4:35 A.M.
Passed Port Colborne (up) on August 20th at 7:50 A.M.
Arrived Toledo *light* on August 21st

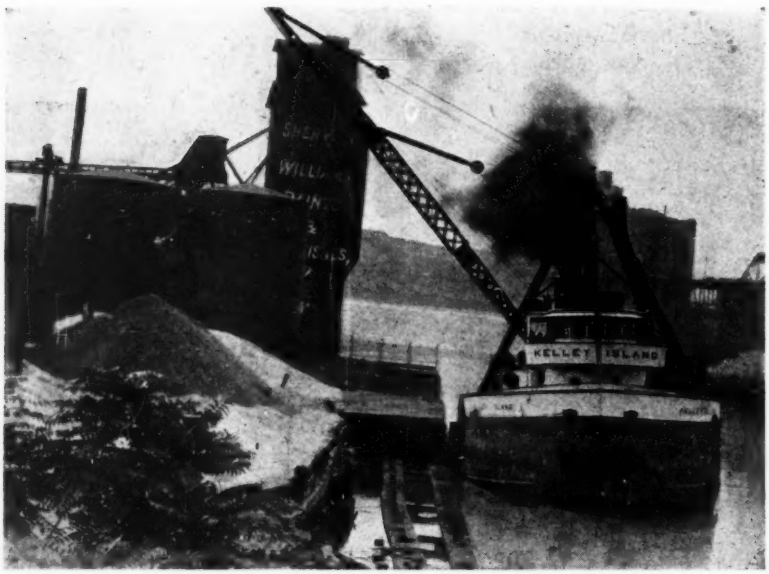

Fig. 4. The *Kelley Island* unloading sand

Cleared Toledo with *coal* on August 21st
Passed Detroit (up) on August 22d at 8:40 A.M.
Passed Sault Ste. Marie (up) on August 23d at 7:00 P.M.
Arrived Duluth on August 25th
Cleared Duluth with *ore* on August 26th.
N.B. Locate all places mentioned in this record. Add new ones to your outline map.
What is meant by "up" and "down" when applied to Sault Ste. Marie, Detroit, and Port Colborne?

B. From the above data secure answers for the following:

1. What was the sailing time between Sault Ste. Marie and Detroit?
2. What was the sailing time from Detroit to Port Colborne?
3. How much time was needed for the ship to pass Port Colborne, reach Hamilton and return to Port Colborne?
4. What waterway was used between Lake Erie and Lake Ontario?
5. What cargoes were carried to Hamilton? Where were they secured?
6. What do these cargoes suggest concerning work carried on in Hamilton?

7. What do these cargoes suggest concerning Canadian resources?
8. Suggest why the ship returned light from Lake Ontario?
9. Why were Lake Erie ports good places to secure return cargoes? What cargo?
10. How many days elapsed from time ship cleared Duluth on August 2d until it arrived in Ashland?
11. How many days from the time it cleared Ashland until it arrived in Duluth?
12. How many round trips to Lake Superior ports within the month?

VII. What are some of the problems that confront the carriers of heavy raw materials on the Great Lakes? (Consult "Annual Report Lake Carriers' Association 1941")

A. An uncertain season of navigation

1. Length of the open season
   a. What is the average length of the open season?
   b. What bearing does the length of season have on shipping?
2. Opening of the season
   a. What is the earliest opening date for Lake Superior ports?
   b. Why do opening dates vary from year to year?
   c. How have ice breakers aided in opening navigation?
   d. What is the earliest opening date for Lake Erie ports?
   e. Why is Buffalo ice bound later than Cleveland?
3. Closing of the season
   a. What is the earliest date Lake Superior ports have closed?
   b. What is the latest date they have closed?
   c. Why does shipping continue longer on Lake Erie?

B. A tremendous tonnage to be carried quickly

1. How many tons of shipping passed thru the locks of the American canal at Sault Ste. Marie in 1941?
2. How many tons thru the Canadian canal?
3. What commodities were handled?
4. How does tonnage handled at Sault Ste. Marie compare with that at Panama?
5. How does tonnage handled at Sault Ste. Marie compare with that at Suez?
6. How many tons of shipping passed thru the Welland Canal?
7. What commodities were handled?
8. How many tons of shipping passed thru the New York State Barge Canal?
9. How is this shipping related to that of the Great Lakes?

C. "Bottlenecks" that slow movement of materials

1. Canals at Sault Ste. Marie
   (Consult "Marine News" October 20-21, 1941)
   a. How many locks are available? Sizes? Names?
   b. Can more than one ship be locked thru at one time?
   c. How long does it take to lock a ship thru?
   d. What delays may be experienced at the Soo?
2. Detroit River
   a. What is the "up" channel?
   b. What is the "down" channel?

c. What delays are sometimes experienced here?

3. Welland canal
   a. How many locks in this canal?
   b. How long does it take to lock a ship thru?
   c. What size ship can be accommodated?

D. Varying lake levels

1. What bearing does precipitation have on lake levels?
2. How do lake levels affect draft of lake vessels?
3. How does draft affect tonnage carried?
4. What usually controls the safe draft to and from Lake Superior?
5. Why is the Detroit River a factor in determining drafts to the lower lakes?

Fig. 5. The *Regent* and *Paratex* at Gulf Refining Company

6. What bearing does depth of water in harbor of destination have on load carried?

E. Uncertain weather conditions

1. How do winds, fogs, ice and cold affect shipping?
   (Consult "Marine News" October and November, 1941)
2. What hazards do ships face at beginning and close of the season?
3. How do insurance rates reflect these hazards?
   (Consult "Marine News" November 22-23, 1941)
4. What Weather Bureau and Storm Warning Service is maintained for lake shipping via Radio Phone?

VIII. Summary of findings concerning bulk freight trade on the Great Lakes

A. State reasons why

1. The chief tonnage is bulky raw materials.

2. Speed is essential in the movement of these raw materials.
3. The greatest movement of raw materials is from west to east.
4. The greatest tonnage handled is iron ore.
5. Vessels frequently return light to upper lake ports.
6. The canals at Sault Ste. Marie handle greater tonnage than the Welland Canal.
7. Weather is the key to Great Lakes shipping.
8. Insurance rates on lake vessels expire after midnight on November 30.
9. Many vessels bring wheat down the lakes as the last cargo of the season.
10. Wheat is an important shipment from Buffalo eastward on the New York State Barge Canal.
11. Coal is an important shipment thru the Welland Canal.
12. Coal is an important shipment to ports on Lake Superior.
13. Petroleum is shipped from Indiana Harbor and Toledo.
14. Coal and petroleum are late season cargoes on Lake Erie.
15. Toledo is the largest coal shipping port on the Great Lakes.
16. Buffalo is the largest anthracite coal shipping port on the lakes.
17. Chicago became an important sulphur shipping port in 1941.
18. Corn shipments are made from Chicago but not from the grain ports on Lake Superior.
19. Vessels find it difficult to pick up return cargoes at ports on Lake Ontario.
20. The southern shore of Lake Erie is a focal point for lake shipping.

B. On not more than one typed page, state the outstanding features of the bulk freight trade on the Great Lakes.

IX. Some helpful supplemental readings:

Beasley, Norman. *Freighters of Fortune*
Channing, Edward and Lansing, Marion F. *The Story of the Great Lakes*
Curwood, James Oliver. *The Great Lakes*
Hatcher, Harlan. *The Great Lakes*
Hatcher, Harlan. *Lake Erie*
Havighurst, Walter. *The Long Ships Passing*
Wallen, James. *Cleveland's Golden Story*
Williams, Ralph D. *The Honorable Peter White*

ALSACE-LORRAINE: A BORDER PROBLEM

LORENE A. GARLOCH
University of Pittsburgh

INTRODUCTION

To satisfy the elementary urge of national patriotism, we must have frontiers. They must be as fair as human brains can devise. Frontiers are determined by history and geography which often work at cross-purposes and by culture or language which are affected by both and usually coincide with neither. Few countries can boast of limits assigned by nature. As for historical frontiers they are as a rule elusive gigantic shadows. Each country loves to evoke the memory of its greatest extent and power, however distant and fleeting. Language or culture are not decisive in determining frontiers or Switzerland would immediately be divided between France, Germany and Italy. Germany would occupy Holland and part of Belgium. Spain would claim South America and Britain the United States.

Europe is full of border problems, some more troublesome than others. On account of the geographical situation of Alsace-Lorraine, it is a matter of general concern to all Europe and consequently to the rest of the world in so far as it affects the world's peace. There are three ways in which the question of Alsace-Lorraine may be settled at the Peace Conference. These provinces may become 1) a part of Germany, 2) a part of France, or 3) an autonomous state acting as a buffer between France and Germany. Dorothy Thompson states in an article, "Europe must broaden or perish. The nations of yesterday are too small for equality."[1] Guerard in his recent book, *France of Tomorrow,* makes the following statement, "Europe should form a convenient unit of the largest class like the U.S.S.R. and the U.S.A. It would have no military or customs divisions within its boundaries. If you abolish the nation as the ultimate economic unit you abolish at once the distinction between the Haves and the Have-nots. German industry would thus annex all the iron resources of France, that is it would have free access to them, but conversely French industry would annex all the coal of Germany. Poland would have Danzig in the same way the Ohio has the port of New York." If one agrees with the former, as does the author of this paper, plan three is ruled out

[1] Dorothy Thompson. Death and Birth. *Commonweal,* 39:65-68, November 5, 1943.

immediately. If Guerard's policy is acclaimed, one and two are ruled out but three is a possibility for Alsace-Lorraine could be autonomous in a large economic block. No matter what the train of thought, Alsace-Lorraine is bound to be a problem of post-war Europe. Being of Alsatian ancestry, this particular problem interests me more than any other in Europe. My ancestors left the province in 1830 when it was a part of France. Yet, they always spoke of the region as a part of Germany and themselves as Germans. As a result, I was surprised, in visiting Alsace in 1930, to find that most of the inhabitants wanted to belong to France even tho German was the spoken language of the majority.

Geography

Alsace-Lorraine comprises 5,600 square miles in the northeast portion of France. It is a highland region of basins and sharp-edged plateaus. Alsace is essentially a part of the great trough between the Vosges and the Black Forest. It consists of the eastern slopes of the Vosges from their crest to the Rhine. The Lorraine Gate provides the most direct line of contact between the Paris Basin and the Rhine Valley. The transportation connections with Germany along and across the Rhine are more numerous and more intimate than those with France across the Vosges. Compared with Lorraine, Alsace has the advantage of greater definiteness as a geographical unit. It is the region of the valley of the Ill which ends at the Vosges in the west and at the banks of the Rhine in the east. This elongated plain appears thruout history as a corridor thru which different peoples marched and countermarched.

This is the meeting place of France and Germany and is consequently of major strategic importance but it is important also because of its valuable resources. Lorraine is rugged and has limited agricultural possibilities. However, it has important forests and valuable minerals. The salt deposits near Chateau Sabines have been mined since ancient times and today serve as the basis for an important chemical industry. By far the greatest resource is iron ore, for Lorraine contains 46 per cent of the valuable iron ore reserves of Europe. Around the mines have grown up important industrial centers specializing in the production of pig iron and crude steel. As a result of World War I, France added materially to its industries by getting the iron deposits and the mills and furnaces of the section of Lorraine formerly held by Germany. The only mineral wealth of Alsace consists of potash mines. These

are the second largest deposits of this mineral in the world. However, Alsace is primarily agricultural. The protected climate and fertile soil lead to the intensive growth of the vine, fruit trees and tobacco. Excellent pasturage on the slopes of the Vosges supports many cattle. Dairying is important and a considerable number of sheep are raised. Wool led to the development of a textile industry which has since changed to cotton. Alsace did possess 2,000,000 cotton spindles and Mulhouse and Colmar were the leading textile centers. Strasbourg is an important manufacturing and commercial city. It is the Rhine port of France.

Whereas in Alsace, the people seem to all appearances to be German, in the plain of Lorraine, they are unquestionably French in type. In the villages, the German names give place to French ones. This difference in background of the two provinces is well exemplified in the costumes of the women. The dominant color of the Alsatian costume runs into the darker hues and it is dominated by a large bow well known the world over. It all harmonizes with the peasant costumes of other parts of Germany. The Lorraine costume is more in keeping with the French character.

The line of the language boundary has varied but little in the course of the centuries. Sometimes one language has gained a little and sometimes the other at the expense of rival tongues. The language frontier has in the main run along the summits of the Vosges leaving Alsace for the most part within the area of German speech and Lorraine with a small exception within the range of French. In Alsace, of the total population of about 1,219,000 approximately 1,153,000 are German speaking.

Historical Background

Since 842, when the celebrated oaths of Strasbourg were exchanged in the Romance and Teutonic languages by Louis the German and Charles the Bald, Alsace has occupied the European historical stage as a bone of contention between German-speaking peoples and their French rivals. About a year later, Alsace and Lorraine were awarded to Lothaire. In 1648, France won by treaty settlement its long contested rights in Alsace. Lorraine was formally ceded to France at the time of the Treaty of Vienna in 1738. This lasted until the Treaty of Frankfort in 1871. The area has been associated with Germany during the greater part of its history but during the most important formulative period of its modern history, from 1789 to 1870, it was a part of France. The

French Revolution made Alsace French in spirit if not in speech. Ideas in the province had always been progressive. Liberty, equality and fraternity appealed strongly to the Alsatian mind. Nowhere in France was there a more fervent revolutionary spirit.

The rapid defeats of France in 1870 laid it at the mercy of the new Germany. Alsace was an obvious demand. The seizure of eastern Lorraine was strategic. Bismarck was persuaded by his generals that it was essential to the defense of Germany. He himself had strong qualms about taking over Metz which he said had too many foreigners. Had linguistic boundaries been respected at the Treaty of Frankfort and the French districts of the conquered provinces left to France, Franco-German relations might not have been marked with the lack of cordiality which has characterized them since 1871. The inclusion of a handful of French within the German territory was not politic. Thus, the question of Alsace-Lorraine was amplified on May 10, 1871, at Frankfort-on-the-Main by the signing in that city of the treaty of peace which ended the Franco-Prussian war and cut off from France and handed over to the German Empire most of Alsace and part of Lorraine. From that day the question was an active reality for France and the annexed lands. Altho the newly constituted German Empire repeatedly denied thru various channels that such a question existed, the question of Alsace-Lorraine became a most active and ever present reality for Germany. Very soon it also became an actuality, tho not recognized openly, for the other nations of Europe.

In 1871, there were no plebiscites. If there had been Alsace-Lorraine would have returned to France by a considerable majority. French resentment was strong naturally at the loss of provinces which had been French for the last two hundred years to say nothing of the blow to national pride. The first impulse in Alsace-Lorraine in 1871 was a vigorous resistance to all German efforts. After twenty years of struggle, the local patriots dropped the idea of reunion with France and substituted instead the vision of an autonomous state within the German Empire.

In 1918, the Alsatians after forty-eight years of German domination greeted with enthusiasm their return to France and welcomed the French troops as conquering heroes. At this time, the people of Alsace would certainly have considered a plebiscite as an affront to their honor and loyalty to France. The difficulties of such a plebiscite would have been immense. Tens of thousands of French left in 1871. Three hundred thousand Germans had settled there

since and with their descendants numbered one half million. For a fair plebiscite, the conditions of 1871 would have had to be reproduced and this was impossible.

Autonomy

Alsace-Lorraine between 1870 and 1918, in spite of its anti-German sentiment and a bit because of it, had developed in the direction of a political autonomy more apparent than real. It had become by reason of the social laws introduced by Germany and its own economic development a country comparable to the most modern, in many points more advanced than France. After 1870, Alsace-Lorraine, hating Germany and feeling France becoming more distant each year, had gradually withdrawn into itself and an autonomous movement was founded. After 1924, the breach between French patriots and Alsatian home-rulers began to widen. This was doubtless caused by the policies of the Herriot government, particularly in religious matters. The movement was backed generally by Germans who had not returned to Germany, by most of the priests and by the people to whom religion meant more than democracy or who felt the German strain within them. At first the demand was for an autonomous Alsace-Lorraine within the French Republic but later the program became frankly separatist. In 1928, some of the leaders of the movement were tried and condemned for sedition and popular passion was inflamed. The emergence of Hitler convinced some groups to remain as part of France. The construction of the Maginot line, the greater part of which covered the boundaries of Alsace-Lorraine convinced the others of French strength. Autonomism has been more prevalent in Alsace than in Lorraine. This may be due in part to temperamental differences, the Alsatian being more aggressive than the Lorrainer. Another cause has doubtless been the fact that there are more French-speaking people in Lorraine. There is, too, a decided jealousy between the two cities of Metz and Strasbourg. Under a regional government, Strasbourg would again become the capital of the provinces as it was under German control. This development would be extremely distasteful to the Lorrainers.

French Rule

On November 22, 1918, the French armies entered Strasbourg and were greeted with wild enthusiasm. The German government had made strenuous attempts to Germanize the conquered territory

which intensified to some extent the sentimental attachment to the former mother country, France. Added to this were the antipathy to German militarism, resentment against German administration and the great suffering of the war years, 1914-18. From 1900-1913, over 22,000 boys fled from Alsace-Lorraine to enlist in the Foreign Legion of the French Army. Yet Germany had improved the provinces. They became important industrial centers, canals were constructed, a splendid system of railways was created, excellent sanitation was installed and a good school system was inaugurated.

Disadvantages. From the first moment of reunion, it was obvious that the path of Alsace-Lorraine was to be rough and precipitous. Currency was in a state of chaos, the value of the German marks in the provinces dropping almost to zero. The legal system was in confusion; only the older people knew anything of the French laws of 1870, a code of laws in many respects inferior to that of the Germans. The grievances of this border population under French rule may be grouped under the following headings—administrative, linguistic and cultural, religious and political. The first cause of Alsatian discontent was dissatisfaction with the administration. From 1919 until 1924 there was scarcely any other. Under German rule, most of the officials of the bureaucracy in Alsace-Lorraine had been natives of the region. Furthermore, they had enjoyed special rights and privileges. The advent of the French brought a great influx of functionaries who often received important posts formerly held by natives. This was bound to make trouble. The unification of the tax system of Alsace-Lorraine with that of France also caused differences. Since the return to France, the cities have had their own high municipal taxes to meet besides having to pay national taxes. This has made taxes in Alsace-Lorraine higher than those in the rest of France. Under the German rule, Alsace-Lorraine formed an administrative unit. France has one of the most completely centralized governments in the world. In the matter of administration, especially of local affairs, there had been little change since the time of Napoleon. Matters which had formerly been settled in Strasbourg in a short time were now sent to Paris for decision, often delayed by red tape. "During German times when anyone went to an office, he was sure to be received brusquely but he always got what he came for. Under the French regime, one was sure to be received nicely, but he never got anything."[2]

[2] M. S. Wertheimer. Alsace-Lorraine: a border problem. Foreign policy association. Information service, 5:465-482, February 19, 1930.

The situation was aggravated by the fact that most of the functionaries sent to the recovered provinces from the interior of France spoke only French. A large majority of the population speak a German dialect closely akin to German and have been educated in German schools. People going to the Post Office to buy a postage stamp found that the postal clerk could not understand them nor they him. During the first flush of enthusiasm for France after the reunion of the provinces with the old mother country, the language question did not appear acute. The French lost no time after the Armistice in changing all the signs in public places from German to French. People who could not read a word of French thus found it extremely difficult to get around in their native country. Interpreters were necessary in the courts. The idea of French being taught in the schools provoked the parents who knew only German for the most part.

The great majority of the people of the provinces are Catholic.[3] In Alsace-Lorraine, the government nominates bishops, pays the salaries of priests, pastors and rabbis and insures religious instruction in the schools. None of these functions are undertaken by the state in the rest of France. As a result, this has caused constant friction. The Herriot government attempted to change all this but failed.

Advantages. The return of Alsace and Lorraine to France raised France to an important world rank in the production of ore and metal. In industry, the Germans for several decades had shown far more daring and vigor than the French. Many people feared that the Alsatians would find the tempo of the French a little sluggish. On the contrary, the provinces seemed to have benefited from the re-annexation to France. The port of Strasbourg was greatly improved. Under German administration, the port never attained a movement of 2,000,000 tons of goods while in 1927, it exceeded 4,000,000 tons. Commercial activity in Strasbourg as early as 1924 was 38 per cent greater than it had been in 1913. Strasbourg is an economic center not only of Alsace but of a large portion of France. The Rhine is an international river, it rises in Switzerland and ends in Holland. Germany since 1871 had been practically mistress of navigation on the Rhine and this navigation increased enor-

[3] Catholic 1,420,503
Protestant 275,121
Jewish 26,123
None 73,353

mously. Trade on the Rhine was almost entirely in the hands of Westphalian industrials. The non-German flag was represented on only 13 per cent of the tonnage reaching Mannheim and on 8 per cent of that reaching Strasbourg. Upon the signing of the Armistice, many French companies were formed for navigation on the river. It is not necessary nor desirable to prevent the union of the Rhine and the Danube or the creation of a navigable waterway which would bring Western and Eastern Europe closer to each other, but it is important that such a waterway should not become a German monopoly. It is necessary to keep the European continent, which could be dammed up and exploited by a single great power, open to reciprocal relations and make its every part accessible and more easily permeable.

The potash deposits were more actively exploited. Under the German regime, they were sacrificed for the mines in Saxony. Production increased threefold. A great water-power scheme was developed at Kembs in upper Alsace. The University of Strasbourg, far from suffering from its return to France, attracted some of the best men in the country. The Société Alsacienne de Constructions Mecaniques, which saw its factories divided between France and Germany in 1870, was able in 1918 to combine its two branches once more and begin anew with a burst of activity. Communications were further and efficiently improved. Alsace again took without difficulty its natural place in French economic life. Its industrial production found a more important outlet in the agricultural country that was France than it did before the war in an already greatly industralized Germany.

The language problem could not be settled overnight. French was naturally taught everywhere. Ample opportunity was, however, given for the study of German and no petty restriction was placed upon its use or on that of the provincial dialect. However, by the time the generation born in 1919 would have attained its majority, a new Alsace-Lorraine would have come into existence. The knowledge of the French language which by that time would be widespread would have aided in bringing a more perfect and sympathetic understanding. The political problems seemed only a question of time and patience.

Conclusion

Restoring the frontiers will not ensure peace. Which war? Which frontiers? Those of 1939, of 1919, of 1914, of 1870, of 1815,

The situation was aggravated by the fact that most of the functionaries sent to the recovered provinces from the interior of France spoke only French. A large majority of the population speak a German dialect closely akin to German and have been educated in German schools. People going to the Post Office to buy a postage stamp found that the postal clerk could not understand them nor they him. During the first flush of enthusiasm for France after the reunion of the provinces with the old mother country, the language question did not appear acute. The French lost no time after the Armistice in changing all the signs in public places from German to French. People who could not read a word of French thus found it extremely difficult to get around in their native country. Interpreters were necessary in the courts. The idea of French being taught in the schools provoked the parents who knew only German for the most part.

The great majority of the people of the provinces are Catholic.[3] In Alsace-Lorraine, the government nominates bishops, pays the salaries of priests, pastors and rabbis and insures religious instruction in the schools. None of these functions are undertaken by the state in the rest of France. As a result, this has caused constant friction. The Herriot government attempted to change all this but failed.

Advantages. The return of Alsace and Lorraine to France raised France to an important world rank in the production of ore and metal. In industry, the Germans for several decades had shown far more daring and vigor than the French. Many people feared that the Alsatians would find the tempo of the French a little sluggish. On the contrary, the provinces seemed to have benefited from the re-annexation to France. The port of Strasbourg was greatly improved. Under German administration, the port never attained a movement of 2,000,000 tons of goods while in 1927, it exceeded 4,000,000 tons. Commercial activity in Strasbourg as early as 1924 was 38 per cent greater than it had been in 1913. Strasbourg is an economic center not only of Alsace but of a large portion of France. The Rhine is an international river, it rises in Switzerland and ends in Holland. Germany since 1871 had been practically mistress of navigation on the Rhine and this navigation increased enor-

[3] Catholic 1,420,503
Protestant 275,121
Jewish 26,123
None 73,353

mously. Trade on the Rhine was almost entirely in the hands of Westphalian industrials. The non-German flag was represented on only 13 per cent of the tonnage reaching Mannheim and on 8 per cent of that reaching Strasbourg. Upon the signing of the Armistice, many French companies were formed for navigation on the river. It is not necessary nor desirable to prevent the union of the Rhine and the Danube or the creation of a navigable waterway which would bring Western and Eastern Europe closer to each other, but it is important that such a waterway should not become a German monopoly. It is necessary to keep the European continent, which could be dammed up and exploited by a single great power, open to reciprocal relations and make its every part accessible and more easily permeable.

The potash deposits were more actively exploited. Under the German regime, they were sacrificed for the mines in Saxony. Production increased threefold. A great water-power scheme was developed at Kembs in upper Alsace. The University of Strasbourg, far from suffering from its return to France, attracted some of the best men in the country. The Société Alsacienne de Constructions Mecaniques, which saw its factories divided between France and Germany in 1870, was able in 1918 to combine its two branches once more and begin anew with a burst of activity. Communications were further and efficiently improved. Alsace again took without difficulty its natural place in French economic life. Its industrial production found a more important outlet in the agricultural country that was France than it did before the war in an already greatly industralized Germany.

The language problem could not be settled overnight. French was naturally taught everywhere. Ample opportunity was, however, given for the study of German and no petty restriction was placed upon its use or on that of the provincial dialect. However, by the time the generation born in 1919 would have attained its majority, a new Alsace-Lorraine would have come into existence. The knowledge of the French language which by that time would be widespread would have aided in bringing a more perfect and sympathetic understanding. The political problems seemed only a question of time and patience.

Conclusion

Restoring the frontiers will not ensure peace. Which war? Which frontiers? Those of 1939, of 1919, of 1914, of 1870, of 1815,

of 1812, of 1789? At no time have political boundaries between states been accepted as natural, just and definitive; the territorial history of Europe is a series of crimes separated by periods of vengeful rancor.

History, geography, ethnic and economic considerations must be given full weight in determining a frontier but the wishes of a people as developed thru history provide an important, almost overwhelming factor. No war can settle a frontier for it must be a compromise. There is no nationality but the consciousness of national feeling. The feeling eludes all material tests. It spurns historical arguments—the Balkans had to live under the rule of the Turks, the Irish under that of England for nearly half a millennium, yet they resisted absorption. It is not even a matter of language altho language is far more important than commerce or law. Switzerland and Belgium have achieved a national consciousness. Corsica shows not the slightest desire to unite with Italy. Slovaks, Czechs, Croats and Serbs who united on a linguistic basis do not manage to dwell well together. It is therefore not unusual to find that the people of Alsace and Lorraine are among the most patriotic of Frenchmen altho they speak German. The least important influence is that created by a material interest. The coal mines of the Saar and the ore mines of Lorraine were working in profitable partnership. This consideration did not weigh a straw with the Saarlanders when they were consulted. They sacrificed both political liberty and, as they thought, prosperity because they wished to belong to the German fatherland. Economically, Danzig is inseparable from the Vistula Basin and Poland but the Danzigers would at any time have voted for the Reich even if it meant that their trade would be taken over by Gdynia.

For all free peoples what determines the nationality of a group of men is the heart; for the Germans it is language and other national characteristics. In the first case it is democratic, in the second autocratic. Along the Rhine, there lives a body of people who fluctuate between French and German, whose language, culture and traditions are neither French nor German but a mixture of both or a transition between one and the other. There has been as a result a persistent tendency to question the "Frenchness" of the population of Alsace-Lorraine since the Treaty of Versailles. Unless German propaganda is at the bottom of this, it is not understandable. Is it not enough that during 44 years, from

1870 until the outbreak of the war, these populations never acquiesced in German domination; that for all their economic progress and material prosperity they clung to their ties with France. It is insinuated in the years which have gone by since the Armistice that Alsace and Lorraine have had time to make comparisons and to register regrets. I have met people who spoke only French and others who spoke nothing but German and their own patois. There was not one among them who conceived that Alsace-Lorraine should not form a part of France. Not one of them used the words France or French otherwise than as including Alsace-Lorraine. In their hearts, they know themselves to be French whatever their language or accent. In all the passionate opposition to the Herriot government not a word was heard against France itself. The opposition was against a political party's program, not against a nation.

After visiting Strasbourg in 1924, Herr Grauthoff, a German, confided his bitter disappointment to his newspaper. He described in detail how French he found the whole population. He complained of the scant sympathy which was shown to him when he made himself known as a German. He pointed out the disappearance of German literature from the windows of bookshops. In discussing the educational system, he remarked, "The assimilation has been achieved faster than even the French themselves expected."[4] Even Hitler, until 1939, had to acknowledge one of the oddities in modern history, a thoroly Teutonic province obstinately loyal to its foster mother, France.

Now that the war is over, the Germans planted in Alsace-Lorraine after the French collapse should be expelled and the original inhabitants returned. This will take time but before the final solution is fixed we must obviously return to the conditions prevailing at the time of the German seizure of the provinces. Not until this is done can there be a real attempt to appraise the wishes of the inhabitants. My own impression is that they will wish to remain French. Those who do not should have the option of going to Germany.

In regard to bilingualism, I firmly believe that it is necessary in Alsace-Lorraine. Of course, I believe that French culture must undergo a development which will give it the pre-eminent place to which it is entitled. I believe, too, that toward a population which

[4] John de La Valette. France and Germany today. *Nineteenth century*, 96:769-780, December, 1924.

speaks a local German dialect and uses high German as a written language, it is necessary, indeed it is indispensable, that France show a spirit of understanding and wisdom. It should allow the people of the provinces to speak the language with which they are familiar, the language learned in infancy. At the same time, they should be taught to speak French which should also be considered by the people as a mother tongue.

The Alsatians are a notoriously discontented folk. Many of their grievances against France are doubtless justified. Their grievances against Germany are also quite real. Nevertheless, there is some truth in the old rhyme characterizing the people of these troubled provinces:

Hans, Hans of Schnokeloch
Has all that he desires
But what he has he doesn't want
And what he wants he hasn't got
Hans, Hans of Schnokeloch
Has all that he desires.

SELECTED REFERENCES

Alsace-Lorraine. Americana encyclopedia, 1940 edition, vol. 1, pp. 442-443
Alsace-Lorraine. Encyclopedia Britannica, 14th edition, vol. 1, pp. 701-703
Balch, T. W. The question of Alsace-Lorraine. Philadelphia, Allen, Lane & Scott, 1918
Blanchard, W. C. Economic geography of Europe. N.Y., McGraw-Hill, 1931
Bogardus, J. F. Europe, a geographical survey. N.Y., Harper, 1934
Bowman, Isiah. The new world. N.Y., World book co., 1922
Brooks, Sydney. The real problem of Alsace-Lorraine. *North American Review*, 206: 695-704, November 1917
Dominian, Leon. The frontiers of language and nationality in Europe. N.Y., American geographical society, 1917
Eckhardt, C. C. The Alsace-Lorraine question. *Scientific Monthly*, 6:430-433, May 1918
Gallois, Lucien. Alsace-Lorraine and Europe. *Geographical Review*, 6:89-115, August 1918
Gooch, R. K. Regionalism in France. N.Y., Century, 1931
Guerard, Albert. The France of tomorrow. Cambridge, Mass., Harvard university, 1942
Hartshorne, Richard. A survey of the boundary problems of Europe (In Colby, C. C., Geographic aspects of international relations. Chicago, University press, 1938, pp. 163-216)
Haskins, C. S. Franco-German frontiers. *Foreign Affairs*, 3:199-210, December 15, 1924
Hazen, C. D. Why Alsace-Lorraine must be returned to France. *World's Work*, 37:188-202, December 1918
Horrabin, J. F. An outline of political geography. London, N.C.L.C. Ltd., 1942
La Valette, John de. France and Germany today. *Nineteenth Century*, 96:769-780, December 1924
Levainville, Jacques. The port of Strasbourg. *Geographical Review*, 13:243-54, April 1923
Lichtenberger, Henri. Relations between France and Germany. Wash., Carnegie endowment for international peace, 1923

Madariaga, Salvador de. Our muddling world. *Forum*, 80:xxxiii-xxxvi, September 1928
Neukirch, Jacques. The Alsatian question. *Atlantic Monthly*, 146:682-691, November 1930
Newman, Bernard. The new Europe. Macmillan, 1943
Pinon, Rene. Territorial claims of France. *Atlantic Monthly*, 123:398-408, March 1919
Plebs League, London. An outline of economic geography. London, The league, 1926
Riches of Alsace-Lorraine. *Literary Digest*, 75:19-20, December 9, 1922
Thompson, Dorothy. Death and birth. *Commonweal*, 39:65-68, November 5, 1943
Wertheimer, M. S. Alsace-Lorraine; a border problem. Foreign policy association. Information service, 5:465-482, February 19, 1930

DIFFERENCES FROM PLACE TO PLACE

Preston E. James
Syracuse University

Ever since the days of the ancient Greeks, geography has been an essential handmaiden of government. There was need of accurate geographic knowledge before plans and policies could be adopted by the administrators of countries, or by the generals of armies. There has been no question down the centuries about the need for geographical studies at the professional level. But the popular interest in geographical matters has waxed or waned in proportion as the people were called on to share in the making of policy or as they were personally concerned with events in distant places. During both World Wars the American public showed a distinct increase in its demand for geographical knowledge, and especially during World War II the popular presentation of geographic facts thru the use of maps in magazines and newspapers has reached new heights of both quantity and quality. Naturally, therefore, there is an insistent demand for more geography, taught by well-trained teachers, in the elementary schools.

In the face of this demand it might be well to review briefly what geography means to the professional geographer, to the servant of political, military, or naval officials or of business executives who must plan and direct the broader phases of our national policy. It is not necessary to argue at any length that in a democracy, where political power is widespread among the people, the educator, even at the most elementary level, has a responsibility akin to that of the professional advisor of the highest officials, for he must inform the people concerning the underlying issues involved in policy decisions and he must teach the techniques of

studying these issues. As geographers have long maintained, geography is an essential factor in the education of the citizens of a democracy.

The Field of Geography

It is well to avoid special and unusual definitions of geography. Many have been proposed, and not a few have had wide favor during the long history of the subject. But accepting the most simple and direct statement of the field traditionally covered by geographers, we recognize that geography deals with the differences which exist from place to place on the face of the earth. Some people prefer to remain descriptive, because, they insist, there is so much important detail to describe that this objective is sufficient in itself. In providing the information for the planners of war strategy the purely descriptive treatment of geography is of major importance. But how can curious people describe differences as they exist from place to place without wondering why these differences exist and without trying to devise explanations? And most people are curious about the explanations of things.

Unfortunately many people who want to explain things get carried away by the theories they evolve. It is very human indeed to attempt to simplify the complexities of nature by the wide application of some one cause and effect relation. But any one who delves seriously into studies of cause and effect soon comes to recognize the great complexity of things. The complexity is especially great when we try to explain people and what they are doing. Even the pupils before you in a class provide a fairly baffling array of problems if we would seek to understand what makes them behave as they do; and we certainly know that no simple explanation will account for them all. We can't just say that the weather is cool today and as a result the pupils are restless, because sometimes they are more sleepy in cold weather, and some of them react one way and some another. What each individual had for breakfast may be more important than how he reacts to the temperature. But certainly no one simple explanation accounts for them all.

When we try to explain why one place differs from another on the face of the earth, and why the people in one place behave differently from those in another, we are met with much greater complexities than we are if we remain strictly within the class-

room. Each human activity we see today was in part inherited from what parents and grandparents did years ago. A cause and effect relation can only be traced thru the course of time, and for this reason the explanation of differences today on the face of the earth must take us back into history. As one professional geographer put it, "we must go back to origins and trace developments."

If some one tells you that geography covers everything, do not be alarmed. This is partly true. It is true in the same way that history covers everything. There is a close parallel between geography and history: if geography deals with the differences from place to place on the face of the earth, history deals with the differences from time to time. But of course no serious historian tries to deal with every conceivable difference between one period and another—he selects the differences which are important. So also the geographer selects those items of a place which are important. Important for what? The answer differs: if you are a professional geographer providing a general with information about a possible theater of war, your selection of important items differs from what your selection would be if you were advising a businessman about possible markets. A different selection again would be made if you are thinking primarily of the education of children. Still a different selection would be made if you were trying to prove a theory.

Population and Land

In any educational program geography must deal with people. Where do people live? What differences in population density are to be found between one place and another on the face of the earth? Population distribution is a basic and essential fact of geography which underlies all understanding of both our domestic and our foreign problems as a nation. And of course we want to understand why there are many people here and few there, but the explanation is always complex and more often than not we can grasp only partial answers. If we are to know why people live where they do, we must study their manner of making a living, the story of their origin and growth, and we must consider their relations with other people and other places.

So the relation of man to land has long been a fundamental topic included in any consideration of geographic problems. First of all we must know that there are great differences in the land from place to place. There are mountainous lands—and what per-

son who has never seen a mountain can conjure up a real feeling for the mountain landscape? There are great, open, grassy plains —and what person brought up in a forest can understand the meaning of space as the grassland dweller understands that term? But in the classroom, teachers with as wide an experience in travel as possible and with good training in geography to supplement their travels, should try to picture to the pupils what it is like over the horizon—to make them conscious of the differences from place to place beyond what they can see.

In addition to differences in land, there are also differences in people from place to place. There are racial differences, economic differences, political differences, and great differences in what people live for, what they consider to be important, and in their inheritance of technical knowledge. But all people wherever they live and whatever may be their technical knowledge, from the most primitive people to the most advanced (ourselves, of course) —all people must derive their living from the resources of the land. Food, clothing, shelter must all be taken directly from what the land offers, or must be fashioned thru a more or less complex series of steps from what was originally a part of the earth itself, or its cover of water, or its envelope of atmosphere. And beyond the basic physical needs of life man enjoys also a life of the intellect and the spirit. To a marked degree the framework of man's thoughts, the imagery of his poetry, is provided by the land with which he is familiar.

Weakness of the "Response" School

The idea, however, that man is a creature of his physical environment is an over-simplification of a relationship which is extremely complex. The interpretation of why people live the way they do in different parts of the world would be very easy if human activities could be explained as a response to environment alone. The study of physical geography is a much more exact science than is the study of human geography. Scientific techniques for the description of landforms, climates, soils, minerals, and other elements of the physical environment are well advanced. If the number of people that could be supported in a given area were solely a matter of the physical quality of the land, the problem of habitability would be easily solved.

But actually the relations of man to his physical environment

are complex. The significance of the elements of the land is determined, not by the quality of the elements themselves, but by the traditional way of living, the inherited attitudes, objectives, and technical abilities of the people. For example, certain students of Brazil have insisted that 80 or 90 percent of the national territory is potentially productive for farming or grazing. Slopes as steep as 35° are now considered arable in Brazil, where hoe culture is the prevailing agricultural technique. But if plows were adopted the result would be greatly to diminish the proportion of land which can be considered arable, for slopes of anywhere near 35° can not be plowed. The significance of the hilly nature of much of Brazil's national territory in terms of the number of people who might be supported there differs, therefore, according to the prevailing agricultural technique. Historically the great grass-covered plains of the Argentine Humid Pampa would have been recorded by Spanish geographers of the 16th century as of low productivity; these same lands are now classed as among the most productive in the world for grain farming and cattle raising: the difference is not the result of any change in the physical environment, but rather in the whole array of techniques associated with the growth of the modern commercial-industrial society. The same land which once was "unfriendly" or low grade, to another people might become highly productive, highly favorable. In other words the relations between people and the land they occupy must be studied in terms of the way of living of the people—what the anthropologists call the *culture* of the people.

In a study of human geography there are certain basic facts of the physical environment which will always be important to record. The nature of the terrain or the configuration of the surface, the climate, the natural cover of vegetation, the soil, the water resources, and perhaps other items, can not be omitted. But the significance of these items in terms of the distribution and economic activities of the people must be interpreted separately for each different group of people.

With this point of view in mind, curriculum makers for the schools face a job which is at once more complicated and more satisfactory. It is more complicated because of the necessity of thinking thru each area and its problems separately; it is more satisfactory because this way offers a closer approach to the realities and can not fail to prove more stimulating to the pupils. Subject-matter

organization must differ from region to region and country to country, giving less need for the repeated, and almost always futile, attempt to turn geography into a vast memory exercise. Geography becomes truly an exercise in interpretation, an adventure in understanding, rather than a catch-all of more or less standardized facts for which the significance is not at all apparent to the pupil.

Curriculum-makers should not be afraid of stepping on the sacred preserves of history—any more than history should be denied the privilege of using maps. History as it is commonly taught in history classes contributes little to an understanding of geography; but when the teacher of geography attempts to gain an understanding of present-day facts by "going back to origins and tracing developments," the facts of history thus selected take on a new meaning in terms of geography. History and geography do not duplicate: they complement each other. There is no educational difficulty unless the geographer turns out to be a poor historian, or the historian a poor geographer. A humble geographer will check historical facts with an historian and vice versa.

THE MAP

The basic tool of geographic instruction is the map. The map is a device for reducing the size of the surface of the earth so that the differences we observe on it can be seen in one view. But the device is necessarily an imperfect one, for the surface of the earth is almost a sphere and by no possible means can such a surface be made flat without distortion. Maps talk a language of their own, and to teach children to read maps requires carefully considered steps, just as children are taught to read books. Since most of the areas which the pupil studies are far removed from the realm of his direct experience, it is necessary to build up concepts first before it is proper to present these concepts on maps. The approach to maps needs to be gradual and concrete. Some improvement in the approach to maps has been anticipated in the recent wide use of pictorial diagrams, airplane views, and geometric plans of areas familiar to the pupil. These devices which present the familiar in various forms aid the superior pupil, at least, in extending his understanding to foreign areas, but such provisions are still too meager for the average and the slower pupil.

To teach pupils to read and understand maps, at least as well as

they read and understand books, is an essential need. Maps, and the kind of thinking that is derived from maps, are basic to an understanding of the many problems of policy on which the adult citizen in a democracy must formulate an opinion. The schools which claim to train people to live in a democracy cannot fail to accept this responsibility.

THE CULTURAL PROGRESS OF ICELAND

LAWRENCE A. KRATZ
University of South Carolina

Evidences of Remarkable Cultural Progress in Iceland

Iceland approximates Tennessee in area and Chattanooga in population. From 120,000 people scattered over 40,000 square miles of ill-favored territory remote from the main currents of commerce in goods and ideas, one can hardly expect much cultural progress. Yet Iceland maintains an excellent University at Rekjavik with schools of Law, Medicine, Philosophy, Theology, and Humanities; a normal school; a navigation school; two agricultural schools; a symphony orchestra; a national picture gallery; several fine choral societies; numerous amateur theatrical groups; and societies devoted to literature, archeology, linguistics, history, folklore, religion, engineering, natural history, general science, agriculture, cooperation, fishing, and so forth. Icelanders read one hundred newspapers and magazines, among which are included three monthly magazines for doctors, and one magazine each for dentists, nurses, midwives, pharmacists, and veterinarians. Iceland possesses more books in proportion to its population than any other nation in the world. It contains forty times as many books per capita as the United States.[1]

Evaluation of Factors Affecting the Cultural Progress of Iceland

What factors account for the remarkable cultural progress of Iceland? Is it related to natural resources; the effect of climate

[1] Ellsworth Huntington, *Mainsprings of Civilization*, New York, John Wiley & Sons, 1945, Chapter 7. Also: H. H. Arnason, *Cultural Utopia*, Harper's Magazine, May, 1944, 188:553.

on human energy; geographic isolation; natural selection; all, several, or none of these phenomena? Let us evaluate the influences of each of these forces relative to Icelandic cultural achievement.

A. Natural Resources

An interior desert, volcanoes, minerals, woodstands, root crops, pastures, and fish constitute the natural resources of Iceland.

Three-fifths of Iceland is practically uninhabited. A barren, useless, rugged wasteland of mountains, glaciers, driftsands, and lava flows occupies the center of the island. This interior desert not only limits the scope of farming and grazing, but also tends to divide Iceland into small, isolated, discordant coastal settlements. The divisive influence of the interior desert has taxed to the utmost the political sagacity of the Icelanders.[2]

Several times in Icelandic history there have been natural catastrophes which might have irreparably impaired the culture of a less persevering nation. In 1783, for example, an eruption of the Volcano Laki spread dust which killed 53 per cent of the cattle, 77 per cent of the horses, and 82 per cent of the sheep in Iceland. In the subsequent famine, one-fifth of the human population perished. Sporadic lava flows have melted glaciers and set in motion disastrous floods, famines, and erosion. Occasional earthquakes also undermine the security of life in Iceland. Tho an intermittent phenomenon, natural catastrophes are a baneful impediment to Icelandic accomplishment.[3]

Iceland has neither coal, petroleum, iron ore, copper, gold, nor silver. It is devoid of the key minerals necessary for large-scale industrial development. Sulphur and spar are its only noteworthy minerals.[4] Spar is useful in optical and precision instruments.

Trees grow slowly and are cut rapidly. Consequently, they are few and small. This is a serious handicap for an island with long, cold winters; short, cool summers; and very little mineral fuel.[5]

On account of the coolness of its summers, grain cultivation is economically inadvisable in Iceland. Only root crops like potatoes, turnips, and cabbages can be grown profitably. And even root crop cultivation is confined to the southern littoral which faces the Gulf Stream Drift.[6]

[2] Ellsworth Huntington, *The Character of Races*, Chas. Scribner's Sons, New York, 1924, Chapter XVIII. Also: J. Russell Smith & M. Ogden Phillips, *North America*, Harcourt, Brace & Co., New York, 1940, Chapter 36.

[3] *Ibid.* [4] *Ibid.* [5] *Ibid.* [6] *Ibid.*

Icelandic pastures support fine, dense, nutritious crops of grass ideal for horses, cattle, and sheep. But there are extreme variations in summer temperature and rainfall, in consequence of which wet or cold summers frequently ruin the grass crop and give rise to serious agricultural repercussions.[7]

Fishing is the backbone of Icelandic economy. Iceland ranks first in poundages of fish per capita caught by the principal fishing nations of Europe in 1935:[8]

Germany	15
France	24
England	44
Scotland	70
Norway	816
Iceland	5,104

The remarkable cultural progress of Iceland can hardly be ascribed to its natural resources. Iceland's divisive interior desert, its destructive volcanic phenomena, its scarcity of minerals, its unsuitability for grain cultivation, its undependable grass crop, and its unsatisfactory wood supply are distinctly adverse factors relative to economic development and cultural progress. Icelandic economy revolves about grazing and fishing which constitute meagre foundations for material prosperity and intellectual achievement.

B. Effect of Climate on Human Energy

1. *Effect of Climate on Mental Energy.* Huntington estimates that 40°F is the optimum temperature level for mental activity.[9] The average monthly temperature of Rekjavik is never far removed from this level. Its average January temperature is 30°F. Its average July temperature is 52°F. The climate of Iceland appears to be excellent for the development of mental energy.

2. *Effect of Climate on Physical Energy.* Huntington asserts that the optimum temperature range for physical activity extends from 60°F to 70°F.[10] The average July temperature of Rekjavik

[7] *Ibid.*

[8] Vilhjalmur Stefansson, *Iceland, The First American Republic,* Doubleday, Doran, and Co., Inc., New York, 1940, p. 749.

[9] J. Russell Smith and M. Ogden Phillips. *op. cit., loc. cit.*

[10] Ellsworth Huntington, *op. cit.*, p. 268.

is 8°F. below the lower limit of this range. Thruout the year Iceland is too cold for the best possible physical functioning of the human body. Cultural progress depends on wealth-creation as well as idea-creation. Consequently, it depends on physical energy as well as mental energy. Therefore, the adverse effect of climate on physical energy offsets to some extent its favorable effect on mental energy insofar as Icelandic cultural progress is concerned.

C. Geographic Isolation

Rekjavik, Iceland, is 900 miles west of Bergen, Norway, and 540 miles northwest of Scotland. If one were to ignore Iceland's history, its geographic isolation might lead him to assume that the island has been free from war and invasion. But neither of these assumptions would be correct. Iceland was settled in 874 A.D. Between that date and 1263 A.D. sporadic inter-communal wars ravaged Iceland. These continued thruout that period despite the organization of a federal union in 930, tho to a lesser degree thereafter. Between 1263 and 1918 Iceland was governed by Scandinavian invaders who systematically exploited the island for their own commercial benefit until very recent times. The tragic pattern of Icelandic history is largely the consequence of the interaction of two geographic conditions: (a) the remoteness of Iceland from Europe; and (b) a natural environment incompatible with a large population. The remoteness of Iceland from Europe between 874 and 1263 impeded insular unity. In the absence of a close and obvious common enemy, the communities prefered devastating wars among themselves to a powerful central government. A natural environment incompatible with a large population precluded strong resistance to Scandinavian overlords between 1263 and 1918. The small population of Iceland was incapable of raising a force sufficient to repel, harass, or eject the continental intruders. These factors brought about Iceland's bloody civil wars and its quick capitulation to a Scandinavian transgressor in 1263.

While geographic isolation has failed to preserve Iceland from war and conquest, nevertheless it has succeeded in hampering commerce in goods and ideas. For many centuries merchant vessels hesitated to sail across the far reaches of the stormy North Atlantic for the purpose of unprofitable trade with a poverty-stricken island. Iceland's geographic isolation has been more of an impediment than a stimulant to cultural progress.

D. Natural Selection

1. *Occupational Hazards.* Huntington has pointed to occupational hazards as a factor responsible for biological improvement in the Icelandic stock.[11] Fishing in the tumultuous North Atlantic, and herding among the treacherous fogs, bogs, and cliffs of Iceland have ruthlessly eliminated weaklings, simpletons, and neurotics for eleven centuries. Iceland has the highest male death ratio of any nation which keeps vital statistics. Between the ages 15 and 24 the normal male death ratio is 95 to every 100 female deaths. But the Icelandic male death ratio is 169 to every 100 female deaths in the same age group. This anomaly is the consequence of occupational hazards.

2. *Migration Hazards.* In addition to occupational hazards, Huntington has suggested migration hazards as a beneficial force in the natural selection of Icelanders.[12] His theory of migration hazards consists of three fundamental propositions:

(a) The Scandinavian forbears of the Icelanders were the selected product of a brain and sinew straining migration from South Europe to Scandinavia;

(b) The earliest settlers of Iceland were Norse nobility and their most valued retainers. These distinguished pioneers left Norway because of their defeat in a civil war arising from King Harold Fairhair's decision to tax the nobility.

(c) The great expense and omnipresent danger involved in voyages across the stormy North Atlantic in the small, open boats of the ninth century, served to limit Icelandic settlement to the rich, the strong, and the bold.

These three propositions are highly debatable. Proposition (a) seems to rest on the implicit assumption that an arduous migration provides the area of colonization with a higher calibre of people than the fatherland, in consequence of hardships in transit. This assumption is not necessarily valid. If the bulk of the people starting out on a migration happen to be of lower calibre than the bulk of the people remaining in the fatherland, the quality of the inferior nomads will not necessarily be lifted above that of the superior sedentary folk by the process of migration. The weakest and dullest of the nomads will be uprooted, and their average stamina and shrewdness will increase. But if the bulk of the

[11] Ellsworth Huntington, *op. cit.*, Chapters XVII and XX.
[12] *Ibid.*

nomads were inferior to the bulk of the sedentary folk at the outset, the nomads are liable to remain inferior, altho the discrepancy between them and the sedentary folk will have been reduced. Whether the quality of pioneers exceeds or falls below that of sedentary folk largely depends on whether migration is voluntary or forced. This in turn largely depends on whether the area of colonization is a better or worse habitat than the fatherland. If the area of colonization is a better habitat, the strongest and cleverest people may leave the fatherland voluntarily. But if that area is a worse habitat, the strongest and cleverest may monopolize the resources of the fatherland, whereas the weakest and dullest may be forced to migrate by application of political, military, or economic pressure. This line of reasoning has a direct bearing on the migration from South Europe to Scandinavia. At the time of the migration, South Europe was a far better habitat than Scandinavia, as Van Valkenburg and Huntington have ably demonstrated.[13] This fact affords ground for the suspicion that the migration was forced. If so, it might actually have given Scandinavia a stock of lower calibre than South Europe.

Proposition (b) may or may not be correct. Knut Gjerset insists that there was very little connection between the taxation of the Norse nobility and the settlement of Iceland.[14] If Gjerset is correct, Proposition (b) may be inaccurate.

Proposition (c) is also dubious. Hjalmar Lindroth thinks it is possible that slaves, mostly from England and Ireland, might have greatly outnumbered Norse freemen in early Iceland.[15] This notion seems to be incompatible with Proposition (c).

Summary and Conclusion

The cultural progress of Iceland has been remarkable. Its meagre natural resources can hardly account for this phenomenon. Its climate has a favorable effect on mental energy, but not on physical energy. Since cultural progress is a function of both mental and physical energy, the net effect of Icelandic climate on such progress is difficult to estimate. While geographic isolation

[13] Samuel van Valkenburg and Ellsworth Huntington, *Europe*, John Wiley & Sons, New York, 1935, Chapter XVII.

[14] Knut Gjerset, *The History of Iceland*, Macmillan Co., New York, p. 13 ff.

[15] Hjalmar Lindroth, *Iceland, A Land of Contrasts*, Princeton University Press, Princeton, N.J., 1937, p. 12.

has failed to preserve Iceland from war and invasion, nevertheless it has succeeded in hampering commerce in goods and ideas. It has been more of an impediment than a stimulant to the development of the island. The theory of occupational hazards seems to be a partial explanation for the remarkable cultural progress of Iceland. But the theory of migration hazards is highly debatable.

NEW PUBLICATIONS

Ellsworth Huntington. **Mainsprings of Civilization.** 660 pp. Illustrated. John Wiley and Sons, Inc., N.Y. 1945. $4.75.

An analysis of the combined effects upon civilization of biological inheritance, physical environment, and cultural endowment. Many collaborators and critics have assisted the author in the preparation of this volume which in a way is a résumé of the ideas previously expressed in his several publications, as well as added new ones.

Herbert A. Bauer. **Cartography.** No. 60. Vocational and Professional Monographs. 32 pp. Illustrated. Bellman Publishing Company, Inc., Six Park Street, Boston 8, Mass. 1945. 75 cents.

Basic information dealing with the nature and scope of cartography, its development and trends, and its relation to other fields of learning; also guidance to the would-be cartographer as to the evaluation of his own aptitudes, the training needed, the opportunities for employment, and the probable remuneration.

Howard Daniel and Minnie Belle. **Australia, The New Customer.** 369 pp. Illustrated. The Roland Press Co., N.Y. 1946. $4.50.

A commercial and economic guide for American business men. Opening chapters furnish background material dealing with such topics as the land, government, living standards, foreign trade and port facilities. Other chapters provide information on industries, transportation and communication, public utilities, the outlook for trade with American firms, post-war markets and reconstruction plans, and data for specific cities and territories.

Benoit Brouillette, Chairman of the Committee making the survey. **Atlas of Canada Project.** 77 pp. The Canadian Social Science Research Council. 1945.

A preliminary survey. The report includes a tentative outline of what the proposed atlas might include. This outline was submitted after the Committee's examination of the best modern atlases published or about to be published in Europe. It also includes a survey of modern maps already available that have been published by various branches of the federal and provincial governments.

THE NATIONAL COUNCIL AT WORK

The increasing activities of the Council number more than can be described on this page. They include the organization of new committees, the planning of new projects by old committees, the discussion of a proposed new constitution by the Constitution Committee, the holding of state and national meetings.

ANNUAL MEETING OF THE NATIONAL COUNCIL

The program of the annual meeting, to be held at Columbus, Ohio, December 27 and 28, will appear in the November issue of the Journal. Interests indicated by members on the questionnaire last spring serve as a basis for plans. Headquarters are at the Neil House. Reservations should be made early.

COMMITTEE ON CURRICULUM IN HIGH SCHOOL GEOGRAPHY

The chairmanship of the Committee on Curriculum in High School Geography has been accepted by Miss Zoe A. Thralls, University of Pittsburgh. This position was left vacant by the resignation of Henry F. Becker. The other members of the committee continue to serve.

COMMITTEE ON GEOGRAPHIC EDUCATION FOR WORLD UNDERSTANDING

A newly organized committee is that on Geographic Education for World Understanding. The core committee consists of three members: Chairman, Dr. Sidman P. Poole, University of Virginia, Charlottesville; Dr. Wallace W. Atwood, Worcester, Massachusetts; Mrs. Erna Grassmuck Gilland, California, Pennsylvania. The number will be increased as the committee undertakes definite projects.

The National Council has long been interested in the place of geography in education for world understanding. It was a member of the World Federation of Education Associations and many Council members assisted in the work of that organization. Dr. Earl B. Shaw and Mrs. Erna Grassmuck Gilland served as chairman and secretary of the Geography Section during the war years.

STATE COUNCILS AND GEOGRAPHY CLUBS

Affiliated organizations report renewed activity. Readers of the Journal who wish to join these groups should write for information to the officers or to Dr. Thomas F. Barton, Southern Illinois Normal University, Carbondale, Illinois. Below are listed the officers of Councils not previously published.

Alabama State Council. President, L. LeMar Stephan, State Teachers College, Troy, Alabama; Vice-President, Mrs. C. C. Carreker, Birmingham; Secretary-Treasurer, Mrs. Edwin Burns, Birmingham.

Florida State Council. Chairman, Mrs. Ruth Belcher, Mirror Lake Junior High School, St. Petersburg; Recording Secretary, Mrs. Lida Tulane, Senior High School, St. Petersburg; Corresponding Secretary, Mrs. Ruth Donner, Mirror Lake Junior High School, St. Petersburg.

Illinois State Council. President, Miss Annemarie Krause, Southern Illinois Normal University, Carbondale; Secretary-Treasurer, Miss Ruby Harris, Eastern Illinois State Teachers College, Charleston; Editor of Bulletin, Dr. Donald Hudson, Northwestern University, Evanston.

Ohio State Council. President, Miss Mary E. Chase, Rocky River; Vice-President, Miss Evelyn Weston, Cuyahoga Falls.

Katheryne Thomas Whittemore, President

EDITORIAL NOTES AND NEWS

Dr. Edward A. Ackerman, Assistant Professor of Geography at Harvard University, is on leave in Japan for a year to act as Technical Coordinator and Research Supervisor, Natural Resources Section, Supreme Command of the Allied Powers. He has recently contributed two of the nine papers in a publication of the Harvard University Press, entitled "Japan's Prospect."

Dr. Thomas R. Smith, formerly Chief of the Far Eastern Section, Division of Map Intelligence and Cartography, Department of State, Washington, will act as Visiting Lecturer on Geography at Harvard during Professor Ackerman's absence.

Dr. Edward L. Ullman, formerly Director, Joint Intelligence Study Publishing Board, The Joint Chiefs of Staff, Washington, has been added to the staffs of Geography and Regional Planning at Harvard, with the rank of Assistant Professor.

Major Guilbert R. Graham is now on duty with Military Government in Korea, as Chief of the Bureau of Meteorology, Department of Education. He was transferred from Okinawa to Korea about a year ago. In civilian life he taught geography at Lash High School, Zanesville, Ohio.

The Ohio Council of Geography Teachers and the Northeastern Branch of the Ohio Council held a joint meeting in May at Akron University. The morning address, Contemporary Problems in Egypt, was presented by F. Leslie Spear, Supervisor of Social Studies, Cleveland. Then followed a field trip thru the B. F. Goodrich Rubber Plant, and a luncheon at the University. Short papers dealing with the development of unit studies or skills for various levels of students were presented by Robert B. Wallis, Cuyahoga Falls; Ann Berich, Youngstown; Lucile Boylan, Akron; Thelma Wildpret, Steubenville; and Ralph Frank, Massillon.

Reports indicate that the commercial production of abaca in Central America is expanding rapidly. The first planting of our government was experimental, centered on an island off the eastern coast of Panama, and consisted of 1350 plants brought from the Philippines in 1915 by Mr. Edwards of the Department of Agriculture. The progeny of the 500 strong plants that survived furnished the basis for the planting, since Pearl Harbor, of 26,500 acres in four Central American republics. Another big-scale experimenter was the United Fruit Company which had a plantation of 2,046 acres in northwestern Panama. From these and other plantings, Western Hemisphere production in 1946 is expected to total about 50 million pounds. This is, however, less than half our needs, for the United States used 103 million pounds of abaca, in addition to 17 million pounds of Manila rope made in the Philippines and the Netherlands Indies.

Do you know where to get firsthand information on a great variety of materials and industries that are often mentioned in your geography classes? If interested, send for the briefly-annotated list, Material Aids For Use in Teaching of Geography, Educational Paper #1, by A. F. E. Simmons, head of the geography department, State Teachers College, Fitchburg, Mass. The only cost is a 25 cent mailing charge.

Johnson E. Fairchild, Geology Department, Hunter College, N.Y., conducted a radio course in geography last spring and early summer, broadcast over Station WMCA, which might be of interest to Journal readers. A copy of any one of the scripts of these broadcasts may be secured for 10 cents from WMCA Building, 1657 Broadway, New York

19, N.Y. A World Almanac of today containing maps needed for the course is included. The scripts cover such topics as mountains, plains, rivers, oceans, climate, minerals and their relations to various peoples, the central theme back of them all being, "Background for Peace." It is probable that a similar series will be broadcast this fall. For further particulars write to the above address.

Oil prospects look bright for Chile. Early findings from a test well being drilled at Spring Valley, north of Tierra del Fuego, indicate hopes that Chile will be able to produce petroleum beyond its needs.

An apple tree that spreads along the ground instead of assuming a vertical growth is credited to Professor Kiziurin of Omsk Agricultural Institute. This Kiziurin creeping apple tree is adapted to Siberia's cold winters when it is covered with a mound of snow. A litter of straw and fir branches may be an added covering next to the tree. Then, too, the layer of warm air near the ground in the long summer days is supposed to speed the maturity of both fruit and tree.

Can fog over airports be eliminated? Several devices and systems have been tried with varying degrees of success. One system used in the last war depended on controlled fires along the runways. High fuel cost is a deterrent factor in these installations so research continues to be directed toward the perfection of low-cost thermal units. Other plans call for fog dispersal by means of sound waves. These devices embody the principles held by the rainmakers, who contend that rain can be made if the microscopic droplets of water that occur in fog and clouds can be united to form droplets heavy enough to fall. Thus the falling rain clears the field of fog. Tests with blasts of sound from sirens have actually done this but the sound has been unbearable to the people at the airport. So high frequency sound waves must be developed that cannot be heard by the staff and yet are able to clear the fog. Tests are to be conducted this fall at the Navy's Landing Aids Experiment Station at Arcata, California.

Seventy-two members and friends of the Mid-Atlantic Division of the American Society for Professional Geographers left Washington, D.C. on May 18, for a two-day trip to the Shenandoah Valley and nearby West Virginia. Physical features, farming and farm practices, local industry and other geographic items were pointed out by various experts as the buses drove along. High lights of a continuously interesting trip were the Endless and Shenandoah Caverns, the O. E. Baker farm near Timberville, the Zigler cooperative cannery and freezer, and the Wilkins farm near Matthias, West Virginia. The party returned to Washington Sunday, May 19, tired, but enthusiastic for a proposed trip to the Eastern Shore of Maryland.

Organizations known as 4-H Clubs in the United States are called Young Farmers Clubs by the British. A number of these clubs of West Sussex, recently paraded the streets of Chichester, drawing a plow with them. They then took the plow to the Cathedral where it was blessed by the bishop, as "the sign of all our labor in the countryside." Thus the old custom of blessing the plow was revived in England. These clubs are patterned after our clubs. The members will no doubt increase the productivity of the farm. At the same time, the dignity of farm labor will have been enhanced, along with the beautification of the countryside, and the health and well-being of the young farmers.

For some time negotiations have been in progress for the transfer of North Borneo to the full control of the British Colonial Office. For over sixty years the British North Borneo Company has administered the territory. This Company, like the other great

chartered companies of England which established small settlements of English traders in America, Africa, and the Far East, laid the foundations for present day administrations. As the people in the territories which were administered by these companies began to make demands which the companies could not meet, the companies, one by one, asked the British Government to assume the ruling power. The British North Borneo Company never made spectacular profits. North Borneo lies off the path of the great trade routes of the world. It has been dependent mainly on its agriculture which includes rubber, and on its timber and fisheries until it was overrun by the Japanese in 1942. The British Government will now have to pay off the shareholders of the Company, pay the cost of administration, rehabilitate the area, and make funds available for special development schemes. The British North Borneo Company is the last of the great chartered companies to relinquish its ruling powers.

Did you know that our annual sale of Christmas trees approximately totals ten million dollars? The trees sold for the holiday trade may have been cut in order to thin out stands needed for the growth of timber grown for specific purposes, or the trees for the Christmas trade may be seedlings set out on land too steep or too rocky for other crops. When such trees are six or eight years old, they are usually the desired size for decorations. Sale of these trees may require special identification tags. To encourage the planting of such tree crops, the taxes on the lands used to grow the trees could be scaled to increase when the harvest of the trees is made. Thus the growth of trees for the Christmas holiday tree market can be regulated, and a number of farmers may count on this phase of tree culture for all or a part of their livelihood.

GEOGRAPHICAL PUBLICATIONS

William S. Haas. **Iran.** 257 pp., map, 10 photographs, index. Columbia University Press, New York, 1946. $3.50.

A considerable portion of the material included in these pages is not geography, nor does it purport to be. Nevertheless, it is a type of information that is of interest to geographers.

The picture of Iran today and some of the attendant problems are interwoven with varied success into the story of its civilization. American interest in that part of the world has ceased to be purely cultural, for conflicting oil interests have caused Iran to become a major subject of discussion at meetings of foreign ministers.

This book on the history, people, culture and economic development of Iran offers background information that will assist in an intelligent interpretation of events in the Middle East. The sections entitled "The Country and Its People" and "The Economic Situation" are primarily geographical in character and treatment.

The author is well qualified to discuss Iran. For five years prior to coming to the United States in 1940, he was advisor to the Persian Ministry of Education and in his work travelled extensively over the country.

Alden Cutshall

University of Illinois

John C. Gifford. **Living By The Land.** 139 pp., ills., bibliog., index. Glade House, Coral Gables. 1945. $2.50.

The field of natural-resource conservation is perhaps big enough to embrace this work which, according to the publishers, is "conservation with special reference to proper use of the land." It deals mainly with trees, more particularly with Southern or Florida trees, as may be quickly gathered from the superb illustrations.

The opening chapter, "The Meaning of Conservation," contains some provocative comments; here the author views his subject more broadly than elsewhere. A reading of the book is a kind of adventure, for one can scarcely anticipate what the next chapter, or even paragraph or sentence, may contain. Thus, in Chapter 2, "Where and How to Live," the author concludes from a life-time of observation that "the best places to live . . . are situated where the Temperate meets the Torrid Zone and just under the frost line in the elevated parts of equatorial regions." This is followed by a chapter which gives directions for settling a 160-acre forest homestead; "had such a plan been adopted long ago, the forests and the pastures of the nation would now be in far better condition." From this point on the book strikes this way and that in no clearly discernible pattern. "Salt-Land Trees of the American Tropics," and "Five Native Florida Plants," might well find a place in assigned readings for conservation classes and, if the course is broadly conceived, "Beachcombing and Sea-Salvage" would add many worthwhile sidelights. For an interesting mixture of scientific fact, homespun philosophy, whimsy, triteness, and sage advice on many matters, read Gifford's book whose concluding sentence is "The time to preserve anything is while it is still plentiful."

RALPH H. BROWN

University of Minnesota

Emily V. Baker. **Children's Questions and Their Implications for Planning the Curriculum** (with special reference to the contribution of the natural and social sciences in the intermediate grade curriculum.) Bureau of Publications, Teachers College, Columbia University, N.Y. 1945. $2.35.

This book reports a study which was carried out in 16 laboratory and public schools. Grades 3-6 were used including 1,402 children from whom 9,280 questions were collected. "To avoid criticism that the questions are not typical of those which may be expected from the children for whom the average teachers college is preparing teachers, no private school was included in the study." "The purpose of this study was three fold: (1) to call attention to the rich resource which lies in the questions children raise; (2) to indicate to the faculties of teachers colleges the field of knowledge with which elementary teachers should be well acquainted; (3) to suggest means by which children's questions may give direction to the curriculum of the intermediate grades and the teachers college."

In my opinion a careful study of this book would be quite worthwhile for every committee member who participates in the writing of an elementary curriculum and all teaches college faculties having a voice in planning the curricula for those training to teach in the elementary grades. Each needs "to discover the nature of the demands placed upon the teachers of grades three to six when children are free to question as they wish. During the hours the children are in school, this help must come from the teacher or from situations created by the teacher." It is necessary to discover with what areas of learning the teacher must be acquainted in order to meet the needs of developing girls and boys promptly enough to preserve interest, to keep curiosity alive, and to lend the aid the children need in adjusting to their environment.

The questions gathered during the study are included in the book. They have been classified, and analyzed.

Chapter five states interpretations and implications. The summary is concisely stated in the two concluding pages of the book.

ANNA C. LARSON

State Teachers College
St. Cloud, Minnesota

The JOURNAL *of* GEOGRAPHY

CONTENTS FOR NOVEMBER, 1946

Land of the Smokies. By William W. Burchfiel, Jr. 297

Mr. Burchfiel did his undergraduate and graduate work at the University of Tennessee. He was an instructor at the University of Tennessee prior to joining the Navy. Mr. Burchfiel spent considerable time in South America, and while there contributed "Our Tropical Outpost in Venezuela," which appeared in the JOURNAL, May, 1945. He is now completing his doctorate in geography at the University of North Carolina.

Teaching Soil in the Lower Grades. By Thomas F. Barton 309

Dr. Barton is Chairman of the Geology and Geography Department, Southern Illinois Normal University, and a frequent contributor to scientific and educational magazines. He served for many years as secretary of the National Council of Geography Teachers. He is especially interested in elementary education and in conservation of natural resources.

Historical Maps and Seapower. By Carl G. Gustavson 317

Dr. Gustavson is Assistant Professor of Modern European History at Ohio University, and has contributed material recently to: *Journal of Speech, Survey Graphic,* and *South Atlantic Quarterly.*

The Use of the Field Trip in Teaching a Phase of the Steel Industry at the Senior High Level. By R. W. Frank 322

Mr. Frank is a teacher of geography in Washington High School, Massillon, Ohio.

A Geography Choral-Speaking Project. By Hazel G. Handel 327

Miss Handel did her graduate work in geography at Clark University and now teaches geography in Champion Junior High School, Painesville, Ohio. In December, 1938, she contributed "The Use of Dramatization in the Junior High School." During the past summer she taught geography at Ohio State University.

The National Council at Work 330

The National Council of Geography Teachers. By Katheryne Thomas Whittemore 331

Editorial Notes and News 333

Geographical Publications 334

Contents of the JOURNAL are indexed regularly in the *Educational Index to Periodicals.*
Authors alone are responsible for opinions and statements in the JOURNAL.

The JOURNAL *of* GEOGRAPHY

GEORGE J. MILLER, *Editor*
CORA P. SLETTEN, *Assistant Editor*
State Teachers College, Mankato, Minn.

Associate Editors

G. T. RENNER, Teachers College, Columbia University
R. M. BROWN, Rhode Island College of Education, Providence
E. E. LACKEY, University of Nebraska, Lincoln
ERNA GRASSMUCK GILLAND, California, Pennsylvania
J. R. WHITAKER, George Peabody College for Teachers, Nashville, Tenn.
D. C. RIDGLEY, Clark University, Worcester, Mass.
EDITH P. PARKER, University of Chicago

National Council of Geography Teachers
KATHERYNE THOMAS WHITTEMORE, *President*, State Teachers College, Buffalo, New York
CLYDE F. KOHN, *Secretary*, Northwestern University, Evanston, Illinois

---

SUBSCRIPTION TERMS

The subscription price is $3.00 a year, payable in advance. The price of single copies is 35 cents. Postage prepaid on subscriptions from the United States, Canada, Canal Zone, Republic of Panama, Puerto Rico, Cuba, Virgin Islands of the United States, Dominican Republic, Philippines, Guam, Samoan Islands, Hawaii, Mexico, Costa Rica, Guatemala, Nicaragua, Republic of Honduras, Salvador, Argentina, Bolivia, Brazil, Colombia, Ecuador, Paraguay, Peru, Uruguay, Spain and Spanish Colonies. All other countries in the Postal Union add for postage 27¢ on annual subscriptions (total $3.27), on single copies 3¢ (total 38¢). All subscriptions are payable in United States Dollars.

***The Journal* is the official organ of the National Council of Geography Teachers and is sent to all members of the organization. The annual dues, $3.00, are payable to the *Journal of Geography*.** Extra postage rates for copies sent to foreign countries should be added to the membership dues.

Patrons are requested to make all remittances payable to the *Journal of Geography*, in postal or express money orders or bank drafts.

Members and subscribers who wish to continue receiving the *Journal* must send remittances promptly to assure the volume being complete.

Send manuscript and books for notice or review to the *Editor*.
Send orders for back numbers to *Journal of Geography*.

Published monthly except June, July and August

PUBLICATION OFFICES: 450-454 AHNAIP STREET, MENASHA, WISCONSIN

Business Correspondence, Membership Dues, and Subscriptions may be sent to Publication office or to

A. J. NYSTROM AND COMPANY
PUBLISHERS, JOURNAL OF GEOGRAPHY
3333 ELSTON AVENUE, CHICAGO 18

Entered as second-class matter January 15, 1919 at the post office of Menasha, Wisconsin under the Act of March 3, 1879.